

TABLE 5.—*Mean winds, Manila, 1865-1898.*  
(As read off by the Editor from Fr. Algué's diagrams)

Month.	Resultant direction.	Relative frequency.			
		Direction.	Nov.-May.	June-Oct.	Annual.
			<i>Per cent.</i>	<i>Per cent.</i>	<i>Per cent.</i>
January.....	n. 50 e.	n.	8	4	7
February.....	n. 80 e.	nne.	7	4	6
March.....	s. 80 e.	ne.	9	5	7
April.....	s. 45 e.	ene.	5	8	4
May.....	s. 20 e.	e.	11	5	8
June.....	south	ese.	9	4	6
July.....	s. 40 w.	se.	6	4	5
August.....	s. 45 w.	sse.	2	3	3
September.....	s. 45 w.	s.	2	6	3
October.....	s. 80 e.	ssw.	3	9	5
November.....	n. 30 e.	sw.	5	17	9
December.....	n. 20 e.	wsnw.	7	9	7
Annual.....	s. 45 e.	w.	6	6	5
		wnw.	2	2	2
		nw.	2	3	2
		nww.	2	2	2
		n.	8	4	7
Resultant.....			n. 70.5° e.	s. 32.7° w.	s. 85.7° e.

### THE NEW PHILIPPINE WEATHER SERVICE.

As is well known, the Observatory at Manila has been maintained for many years by the Jesuit Fathers under the Spanish administration, and embraced the subjects of astronomy, seismology, and meteorology. About 1894, Father Joseph Algué was transferred from Havana to Manila, and within the next few years distinguished himself by his activity in the study of typhoons. He subsequently became the director of the observatory, and as such, in 1899, had occasion to visit Washington, D. C., on behalf of the first Philippine Commission (of which Professor Schurman was president) here he remained a year superintending the publication of his extensive report to the commission on the climatology and geography of the Philippine Archipelago. The original Spanish edition of this report is already published, and the English summary will appear in the second volume of the commission's report to Congress, dated January 31, 1900, and published as Senate Doc. No. 138, Fifty-sixth Congress, first session.

Early in 1900, in an interview with the Secretary of Agriculture, Father Algué proposed that the United States should organize a meteorological system for the Philippines, placing it in charge of the Chief of the Weather Bureau, who should make the Manila Observatory the headquarters of the Philippine service. On the other hand, Professor Moore urged that it would be best that the Philippine system should be independent of the United States Weather Bureau; that it should be supported by the funds of the Philippine government rather than those of the United States; that Father Algué himself should be the director, and that the United States Weather Bureau would cooperate and render all the assistance possible. Professor Moore's plan was agreed to by Secretary Wilson, and adopted by the Philippine Commission, Secretary Wilson stating, however, that as soon as enough of the islands of the Pacific are connected by cable, it will be advisable for the United States Government to organize an extensive storm-warning system with the Philippine service incorporated under Federal direction.

Father Algué, during the rest of his stay in the United States, consulted with the various officials of the Weather Bureau and studied its methods. Since returning to Manila he has organized the Philippine system on lines parallel to those that characterize the Weather Bureau. As far as practicable, the same apparatus and methods have been adopted and the following extract from his letter to Professor Moore, dated February 17, shows the rapid progress that is being made:

### MY DEAR PROFESSOR:

Most of the instruments intended for the first class stations of the Philippine weather service are at hand, and a few will be made in our mechanic's shop. The United States Philippine Commission<sup>1</sup> has established civil government in some provinces, and there will be a chance to open a few stations on the islands before the coming of the full typhoon season in May. I expect that by that time there will be some twenty telegraphic stations scattered over the islands: everything is done in accordance with the plan approved by you about the end of March, 1900. If this be entirely executed, as you suggested, here will be one of the finest meteorological and seismical *ressau* (network of stations) in existence in any colony over the world.

The mail will bring you a new pamphlet recently published on a typhoon felt in Manila about the 8th of September, 1900 (the very day of the Galveston cyclone.) The pamphlet proved to be very welcome in Manila and in Asia. I confine myself to quoting to you only one instance, viz, the following letter which was received yesterday:

UNITED STATES NAVAL STATION,  
CAVITE, PHILIPPINE ISLANDS,  
February 15, 1901.

### "The Director Observatorio de Manila:

DEAR SIR: I beg to thank you for a copy of your most interesting publication on the storm which prevailed in this vicinity on the 8th of September, last. While I was not in command of this station on that date, I was informed by my predecessor how extremely valuable the telegrams from the Manila Observatory were in guiding him in his disposition of the numerous yard launches and other craft.

With renewed expressions of my regard for the Observatorio de Manila, believe me,

Yours, very respectfully,  
F. HANFORD, Commander, U. S. N.,  
Commandant, United States Naval Station, Cavite, P. I."

### WEATHER BUREAU MEN AS INSTRUCTORS.

Mr. H. B. Boyer, Local Forecast Official at Savannah, Ga., states that he has met with some success in stimulating public interest in Weather Bureau work. On several occasions Prof. Otis Ashmore delivered lectures on meteorology to the teachers of the public schools; Prof. T. S. Lucas, of the High School, has been giving some instruction as to the lessons taught by the weather map; Prof. D. C. Suggs, of the Georgia State Industrial College (colored), has also requested maps as an aid to his classes in the study of physical geography. Applications for maps have been received from the Southern Normal Institute, Douglas, Ga., and the teacher of a school in Whitley, Ga. A cordial invitation was extended by Mr. Boyer to the public school teachers, which resulted in high school and grammar school classes visiting the office, where the instruments were shown and explained.

Mr. Alfred F. Sims, Local Forecast Official, Albany, N. Y., lectured on Monday, March 18, at the Albany High School, on the "Musings of a meteorologist." On March 26 he lectured on the growth of the globe and its atmosphere, under the title, "Glimpses into nature's laboratory."

Mr. Charles Stewart, Observer Weather Bureau, Spokane, Wash., lectured, January 29, to the students of the Blair Business College; February 13 at St. Stephen's School, and March 20 at Gonzaga College.

Mr. S. M. Blandford, Section Director at Boise, Idaho, lectured to the instructors and students at St. Margaret's Academy, Boise, Idaho, on the 16th of March, on barometric pressure, precipitation, temperature, clouds, and wind movement in cyclonic and anticyclonic areas.

### DUST STORMS AND RED RAIN.

In previous numbers of the MONTHLY WEATHER REVIEW we have described several dust storms; a general article on that subject, by Prof. J. A. Udden, was published in the Popular Science Monthly for September, 1896. In this article

<sup>1</sup>That of which Judge Taft is president.